



The Commonwealth of Massachusetts

Department of Public Safety

One Ashburton Place, Room 1301

Boston, Massachusetts 02108-1618

Phone (617) 727-3200

Fax (617) 727-5732

TTY (617) 727-0019

www.mass.gov/dps

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ADMINISTRATIVE RULING

Responsibilities of the “Engineer-In-Charge”

Massachusetts General Law Chapter 146 section 46 states that no person shall have charge of or operate a steam boiler or engine or its appurtenances unless he holds a license referred to in section 49, with some exceptions such as boiler used in private residences. Section 59 states that a license as engineer or fireman shall be suspended or revoked for incompetence or untrustworthiness.

Competence is defined as being duly qualified; answering all requirements; having sufficient capacity, ability or authority. An Engineer or Fireman, in the position as the “engineer-in-charge” is said to be “competent” if he or she understands (1) the general nature and extent of the boilers, engines and appurtenances under his control; (2) his relationship to the people working on or around the boilers, engines and appurtenances under his control; (3) understanding what a boiler, engine and appurtenances is; and (4) the transaction of the simple business affairs as it relates to the duties of the engineer-in-charge.

The “general nature and extent of the boilers, engines and appurtenances” requires a person to have a strong understanding of the codes of construction, the physics of steam and fluid dynamics, strength of materials and the effects of various forces on those materials, water chemistry and the effects of chemicals on boilers and their operation, the causes of boiler or component failure and how to prevent such failures.

As an “engineer-in-charge”, one must understand that those who operate, repair, inspect, maintain, or alter the boiler; engine or appurtenances do so under your full knowledge, understanding and control. The transaction of the simple business affairs as it relates to the duties of the “engineer-in-charge” comprise of those responsibilities covering the daily operation, maintenance, inspection and repair and alteration of the boiler, engine or their appurtenances. Such duties include:

1. Operation

- a. Ensuring all operators are duly licensed;
- b. Ensuring all licenses are properly posted in accordance with the law;
- c. Ensuring all operators are trained in accordance with all laws, regulations, codes and manufacturers manuals in the safe operation of the boilers, engines and their appurtenances;
- d. Ensuring all operators are properly protected from all known hazards in the workplace;

- e. Ensuring all operators operate the boilers, engines and appurtenances in accordance with the law, regulations, codes and manufacturer specifications;
- f. Provide daily instructions to the operations personnel;
- g. Ensure that all required state log books are completed and made available to the Department when requested;
- h. Ensure that all required notices to the Department are submitted in a timely manner;
- i. Ensure that no boiler under their responsibility operates without a valid certificate of inspection.

2. Maintenance

- a. Ensuring all repairs are done in accordance with all the laws, regulations, codes and manufacturers recommendations;
- b. Ensuring all companies and individuals performing maintenance or repairs on the boilers, engines, and their appurtenances hold the proper qualifications and certifications to perform such work;
- c. Ensuring all maintenance and repairs are properly documented in accordance with the laws, regulations, codes and manufacturers specifications;

3. Inspection

- a. Ensure the boilers and their appurtances are thoroughly inspected internally and externally at least once a year by a commissioned inspector;
- b. Ensure that all accessible spaces in the boiler are opened and cleaned and the boiler is ready for the inspector;
- c. Ensuring the inspector has a good working knowledge of the history of the boiler operation, maintenance and repairs;
- d. Ensuring the boiler certificate of inspection is properly signed and posted in accordance with the law.

4. Repairs and Alterations

- a. Ensuring all repairs and alterations are done in accordance with the law, regulations, codes and manufacturer specifications;
- b. Ensuring all personnel performing repairs are properly qualified and certified to perform such repairs;
- c. Ensuring all hydrostatic tests and pressure tests are performed and in accordance with the inspector, laws, regulations, and codes;
- d. Ensuring all areas around a failed part, or susceptible to the same failure mechanism, have been inspected;